

THE CLAIMS

1. A delivery system for enabling the dispensing of medicinal compositions directly to an internal site in a human body, said delivery system comprising:

- A. a container constructed for receiving and retaining the medicinal compositions therein and incorporating an exit portal;
- B. closure means mounted to the portal of the container for securely retaining the medicinal composition; and
- C. a delivery nozzle or cannula mounted to the closure means and comprising:
 - a. an elongated tube portion having an overall length constructed for ease of insertion into an orifice communicating with a cavity of the human body, said overall length being constructed to assure the complete insertion of the tube portion into the cavity without injuring any surrounding tissue; and
 - b. at least one aperture formed along the distal end of said elongated tube portion for enabling the medicinal composi-

20250405150000

tion to be dispensed from the container through the tube portion directly to the desired site.

2. The delivery system defined in Claim 1, wherein said delivery nozzle or cannula further comprises an enlarged surface formed adjacent the proximal end thereof, for providing a positive stop for said tube member in order to prevent over-insertion of said tube member into the cavity.

3. The delivery system and defined in Claim 2, wherein said elongated tube portion is further defined as being formed from flexible material in order to assure ease of use and insertion thereof into the human body for being positioned in the precisely desired location.

4. The delivery system defined in Claim 2, wherein said closure means is further defined as comprising one selected from the group consisting of caps and finger-operated dispensing valves, and the delivery nozzle/cannula is further defined as being securely affixed to said closure means in a manner which prevents dislodgement thereof from said closure means.

2025.03.13.00.00.00

the delivery system defined in claim 1, wherein the delivery nozzle/cannula has a diameter that is smaller than the diameter of the orifice, thereby further assisting in providing the desired orifice.

6. The delivery system defined in Claim 4, wherein the elongated tube portion of the delivery nozzle/cannula is further defined as comprising a substantially uniform diameter throughout the entire length thereof, with the distal end of said tube portion being smoothly rounded to assure ease of insertion into the desired orifice without injuring any surrounding tissue.

7. The delivery system defined in Claim 2, wherein said container is further defined as comprising a thin walled, flexible construction and said closure means comprises a cap member affixed to the portal of the container for enabling the medicinal composition in said container to be dispensed directly to the desired internal site in the human body by inserting the elongated tube portion into an orifice of the human body, advancing the tube portion into the cavity associated therewith and enabling the medicinal composition to be dispensed directly to the desired site as pressure is applied to the thin walled, flexible container.

8. The delivery system defined in Claim 7, wherein the elongated tube portion comprises an elongated delivery channel formed by the internal diameter thereof which is constructed for controlling the delivery pressure produced by squeezing the flexible container.

9. The delivery system defined in Claim 8, wherein the internal diameter of said elongated tube portion is further defined as ranging between about 0.05 inches and 0.20 inches.

202503130000

10. The delivery system defined in Claim 9, wherein the internal diameter of said elongated tube portion is further defined as ranging between about 0.08 inches and 0.156 inches.

11. The delivery system defined in Claim 2, wherein said elongated tube portion is further defined as comprising an overall length ranging between about 2 inches and 3.5 inches.

12. The delivery system defined in Claim 11, wherein the outer diameter of said elongated tube portion is further defined as ranging between about 0.25 inches and 0.35 inches.

20250403 13:00:00

[illegible]

- A. between about 0.01% and 0.08% by weight based upon the weight of the entire composition of citric acid powder;
- B. between about 1% and 5% by weight based upon the weight of the entire composition of one selected from the group consisting of nonoxynol-9 and octoxynol-9;
- C. between about 8% and 12% by weight based upon the weight of the entire composition of glycerine;
- D. between about 0.30% and 2.0% by weight based upon the weight of the entire composition of povidone iodine; and
- E. deionized water forming the balance.

14. The delivery system defined in Claim 13, wherein said douche formulation is further defined as comprising:

- A. 0.05% by weight based upon the weight of the entire composition of citric acid powder;
- B. 1.00% by weight based upon the weight of the entire composition of one selected from the group consisting of nonoxynol-9 and octoxynol-9;
- C. 10% by weight based upon the weight of the entire composition of glycerine;
- D. 0.03% by weight based on the weight of the entire composition of povidone iodine;
- E. a suitable quantity of a fragrance, as needed; and
- F. deionized water forming the balance.

15. The delivery system defined in Claim 1, wherein said system further comprises:

- D. a check valve mounted in the container for preventing backflow into the container.

20100904.020102

16. The delivery system defined in Claim 15, wherein said check valve comprises a cup member mounted in the portal of the container and said cup member comprises:

- a. a cylindrical shape closed at one end thereof;
- b. an aperture formed in the closed end;
- c. a ball member movably mounted in association with the aperture; and
- d. a disk incorporating a plurality of apertures formed therein, said disk being axially movable in said cup member through a limited distance for controlling the movement of the ball member into and out of the aperture.

17. The delivery system defined in Claim 16, wherein said cup member further comprises an inwardly extending lip formed on an inside surface thereof adjacent the disk for controlling the axial movement of the disk.

2025-03-14 10:00:00